

## **SECTION V: DETAILED INSTRUCTIONS FOR PRACTICE SESSIONS**




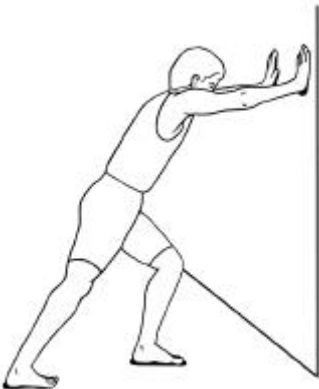


*Note: Providers are responsible for a safe and effective delivery of physical tasks training based on the recommendations of qualified staff whom they select. The following is a suggested program developed by exercise physiologist Tim Ryan. Providers may vary the physical tasks training guidelines (but not the benchmark minimums) at their discretion consistent with the goals of the statewide core curriculum.*







### **Stretching Exercises**

The following stretching exercises should be included in each physical training session spending approximately one minute per exercise. It is important not to over-stretch during these stretching exercises preceding the aerobic and weight training sessions. A more aggressive stretch and hold sequence can be accomplished following the aerobic and weight training sessions when the muscles are warm and the likelihood of over-stretching and injury is at a minimum. Additional stretching exercises can be found in Appendix E targeted at specific muscle groups to improve flexibility.

1. Arms: Triceps
2. Arms: Biceps
3. Side Benders
4. Lower Leg: Gastroc
5. Upper Leg: Quadriceps
6. Flexors
7. Groin: Thigh Adductors
8. Hip Oblique
9. Hamstrings: Knee to Chest
10. Hamstrings: Leg Raise
11. Lower Back: Extensions/Gluteal
12. Neck Circles

## STRETCHING EXERCISES

Arms - Triceps	Arms - Biceps
<p><b>Sample</b></p>  <p>Pull elbow behind head until stretch is felt. Repeat with other elbow and hold stretch for up to 15 seconds.</p>	<p><b>Sample</b></p>  <p>With arms straight and fingers interlaced, raise arms until stretch is felt and hold stretch for up to 15 seconds.</p>
Side Benders	Lower Leg - Gastroc
<p><b>Sample</b></p>  <p>From starting position, bend the body to the side as far as possible until stretch is felt holding stretch for up to 15 seconds alternating sides.</p>	<p><b>Sample</b></p>  <p>Keeping back straight with heel on floor and turned slightly outward, lean into wall until stretch is felt, holding stretch for up to 15 seconds alternating legs.</p>
Upper Leg - Quadriceps	Flexors
<p><b>Sample</b></p>  <p>Pull heel toward buttocks until stretch is felt in front of leg, holding stretch for up to 15 seconds alternating legs.</p>	<p><b>Sample</b></p>  <p>From position shown, slide foot back and move trunk forward until stretch is felt, holding for up to 15 seconds, alternating legs.</p>




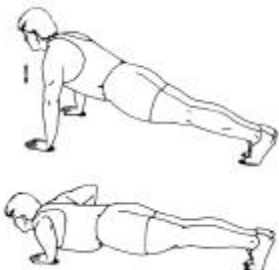
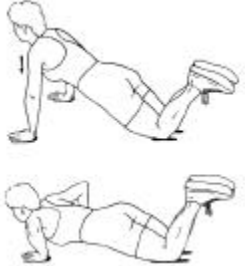
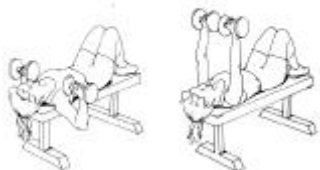
Groin - Thigh Adductors	Hip Oblique
<p style="text-align: center;"><b>Sample</b></p>  <p>From beginning position, slide foot further to side until stretch is felt, holding stretch for up to 15 seconds alternating legs.</p>	<p style="text-align: center;"><b>Sample</b></p>  <p>Clasp hands around knee and gently press knee toward opposite shoulder holding stretch for up to 15 seconds alternating legs. Feel stretch in buttocks and outside of hip.</p>
Hamstring - Knee-to-Chest	Hamstrings - Leg Raise
<p style="text-align: center;"><b>Sample</b></p>  <p>Gently pull knee to chest until stretch is felt holding for up to 15 seconds alternating legs.</p>	<p style="text-align: center;"><b>Sample</b></p>  <p>With hand behind knee, pull leg forward until stretch is felt holding for up to 15 seconds alternating legs. For more stretch, move hands up the leg toward ankle while moving head forward towards knee.</p>
Lower Back - Extensions/Gluteal	Neck Circles
<p style="text-align: center;"><b>Sample</b></p>  <p>Bring knee to chest and hold for up to 15 seconds alternating knees. For more stretch, bring head to knee and hold stretch for up to 15 seconds.</p>	<p style="text-align: center;"><b>Sample</b></p>  <p>From sitting position with back straight, slowly roll head in a full circle clockwise for up to 15 seconds and repeat motion counter clockwise.</p>



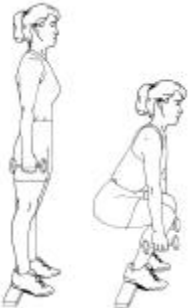



## **Strength Training Exercises**

The following exercises are recommended to improve both upper and lower body strength. These exercises are designed for facilities that lack extensive strength training equipment and can be completed with a minimum of free weights. These exercises are targeted for those individuals experiencing difficulty passing the benchmark standards. The trainee should begin with light to moderate weight where 10-15 repetitions can be completed without undue strain. Two sets of each exercise should be completed. Additional exercises for strengthening specific muscle groups are located in Appendix E.

1. Arms: Standing Alternating Curl with dumbbells
2. Arms: Standing One-Arm Extension with dumbbells
3. Arms: Standing Curl with barbell
4. Chest: Standard Push-Up or Modified Push-Up
5. Chest: Bench Press with dumbbells
6. Arms: Standing Press with dumbbells
7. Arms: Seated Press with dumbbells
8. Legs: Squat
9. Legs: Lunge
10. Abs: Crunch
11. Abs: Bent Knee Sit-Ups

## STRENGTH TRAINING EXERCISES

<b>Arms - Standing Alternating Curl with Dumbbells</b>	<b>Arms - Standing One-Arm Extension with Dumbbell</b>
<p style="text-align: center;"><b>Sample</b></p>  <p>Keeping arms close to sides, curl one arm to shoulder and back to straight arm position. Alternate arms in a slow rhythmic manner.</p>	<p style="text-align: center;"><b>Sample</b></p>  <p>Using one arm to brace, rotate lower arm upward to straight arm position. Complete all repetitions with one arm then repeat with other arm using a slow rhythmic pace.</p>
<b>Arms - Standing Curl with Barbell</b>	<b>Chest - Standard Push-Up</b>
<p style="text-align: center;"><b>Sample</b></p>  <p>Keeping upper arms against sides, and with palms facing up, curl bar to under chin using a slow rhythmic pattern.</p>	<p style="text-align: center;"><b>Sample</b></p>  <p>From starting position, place hands outside shoulder width and with body straight, slowly lower body until chest touches floor and return to upright position.</p>
<b>Modified Push-Up</b>	<b>Chest - Bench Press with Dumbbells</b>
<p style="text-align: center;"><b>Sample</b></p>  <p>From starting position with knees bent, hands placed outside shoulder width and body straight, lower body until chest touches floor and return to starting position.</p>	<p style="text-align: center;"><b>Sample</b></p>  <p>From starting position with dumbbells at chest level, press to straight arm position and return to starting position in a slow rhythmic pattern to tolerance.</p>

Arms - Standing Press with Dumbbells	Seated Press with Dumbbells
<p><b>Sample</b></p>  <p>With palms facing ears, press to straight arm position rotating palms to face forward at top of movement and return to starting position using a slow deliberate motion.</p>	<p><b>Sample</b></p>  <p>Sitting with palms facing ears, press to straight arm position, rotating palms to face forward at top of movement returning to starting position.</p>
Legs - Squat	Legs - Lunge with Dumbbells
<p><b>Sample</b></p>  <p>Standing on board with back straight and head looking upward, bend knees until thighs are parallel to floor and push upright to starting position.</p>	<p><b>Sample</b></p>  <p>With legs shoulder-width apart, head up, and back straight, step forward, bending the leg until thigh is parallel to floor. Return to starting position alternating legs.</p>
Abdominals - Crunch	Abdominals - Bent Knee Sit-Up
<p><b>Sample</b></p>  <p>Keeping head and neck in line with spine, elevate shoulders and upper back toward knees, keeping low and middle back in touch with floor at all times.</p>	<p><b>Sample</b></p>  <p>Bending at waist, curl upper body toward knees crossing arms across chest.</p>

## **Aerobic Exercises**

The cardiovascular portion of the exercise session is generally conducted in a walking, walk/jog, jogging, or running modality. The majority of training facilities will have access to a track or field where the cardiovascular portion of the exercise session can be administered.

Where facilities exist with additional indoor modalities such as stationary ergometers, cross country ski simulators, rowing machines, elliptical trainers, etc., additional cardiovascular workouts can be prescribed based on individual needs.

In some cases, a walking and stationary ergometer program may be more beneficial than a walking only program. Additionally, a non-weight bearing activity can be prescribed based on past history of injuries/surgeries or as an adjunct activity in combination with a weight bearing activity. Even in the case of trainees who may be excellent runners, a cross training approach may improve overall fitness to a greater degree than running only.

The instructors should attempt to guide trainees to individually monitor the intensity and duration of their cardiovascular exercise programs. Following initial assessment, trainees can be categorized into several small exercising groups utilizing a walking format for the less fit trainees and progressing through to more demanding running groups.

Following a 3-5 minute progressive warm-up each trainee should exercise at a training heart rate between 60-80% of intensity, depending on initial level of fitness. (Please see Appendix C, Calculation of Training Heart Rate.) Heart rate should be monitored 2-3 times during the cardiovascular segment maintaining target heart rate range. A large display clock centered in the exercise area will support the concept of the importance of maintaining a prescribed training intensity.

Eventually, heart rate monitoring can be reduced in frequency once a trainee adjusts to the appropriate training intensity based on judgment, experience and knowledge of the rating of perceived exertion scale. (Please see Appendix D, Rating of Perceived Exertion.) In general, a rating of perceived exertion of 13-15 (somewhat hard to hard) is suggested for the majority of trainees to maintain a training intensity of 60-80% of maximum.

The duration of exercise is dependent on the initial fitness level and history of exercise training prior to entrance to the core course. Generally, the group of trainees who have low cardiovascular fitness should attempt to complete 30-45 minutes of cardiovascular activity utilizing a combination of weight bearing and non-weight bearing activities to avoid lower extremity injuries.